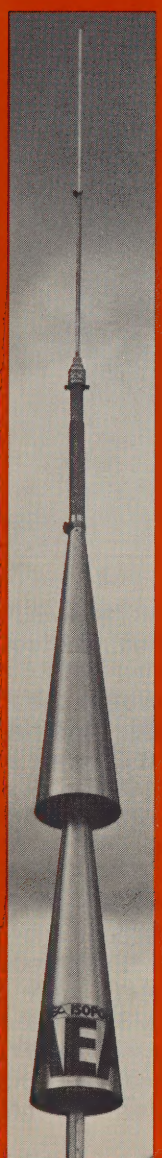
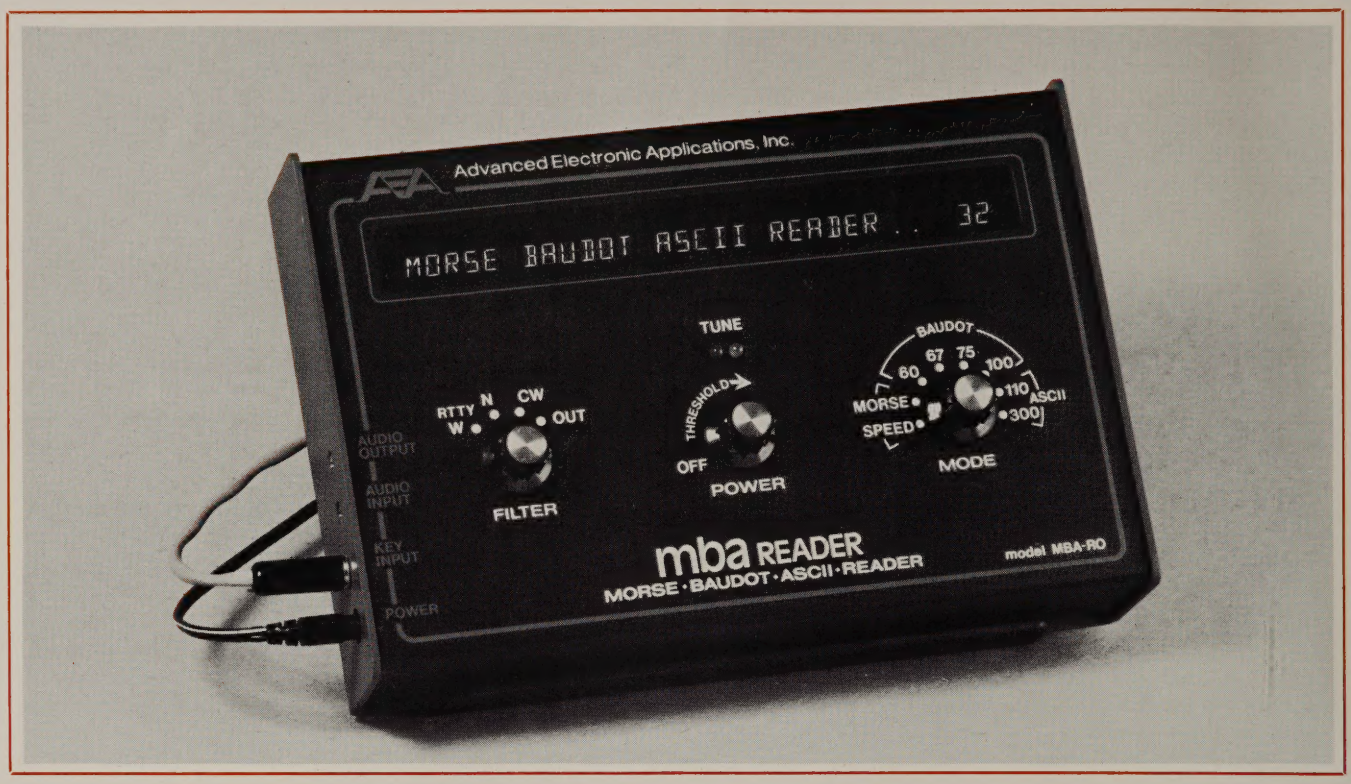


PRODUCT CATALOGUE

ADVANCED ELECTRONIC APPLICATIONS, INC.
P.O. Box C2160, LYNNWOOD, WASHINGTON 98036, U.S.A.

MBA-RO Code Reader by AEA



Advanced Electronic Applications, Inc. (AEA) was **the first company to introduce a single chip microcomputer based product to the R.F. communications market** back in 1977. That product was the AD-1 Auto Dialer which is the predecessor to all other microcomputer dialers on the market today. AEA then introduced **the first microcomputerized Morse code keyer called the Morsematic™ in 1979.** The Morsematic is still regarded as the most advanced keyer in the market today, with automatic increasing trainer speed and a serial number generator for contesting, not to mention at least 30 other important features!

Also in 1979, AEA introduced **the Isopole™ antenna, designed by Dr. D.K. Reynolds (K7DBA).** The Isopole has earned a reputation as the finest low cost, high performance VHF and UHF base station antenna available. The advanced de-coupling techniques used in the Isopole are being emulated now by the oldest antenna manufacturers in the industry, but none can match the rugged, patent pending cone design of the distinctive looking Isopole antenna.

Most recently, AEA has introduced **the industry's first low-cost, high performance microcomputerized doppler direction finder.** It is ideally suited for VHF and UHF direction finding applications requiring up to one degree of resolution.

Now, **AEA is pleased to introduce the first Morse, Baudot, and ASCII code reader featuring a full 32 character vacuum fluorescent display,** and another single chip microcomputer with AEA copywritten software that features among other things,the best automatic speed tracking available for Morse code operation.

The new MBA (Morse-Baudot-ASCII)-RO (Reader Only) is a complete multi-code decoder and display unit that is all you need (other than a 12VDC source) to copy Morse and RTTY signals directly from your communications receiver. With the MBA Reader™, it is now possible to tune in amateur, weather, and news broadcasts that are sent in Morse Code or Baudot or ASCII (American Standard Computer Information Interchange) radio teletype.

The MBA-RO is ideal for SWLs, beginning hams, operators striving for higher code speeds, and for monitoring news or weather broadcasts even while at sea.

Advanced Electronic Applications, Inc. • P.O. Box 2160 • Lynnwood, WA 98036 • (206) 775-7373 • Telex: 152571 AEA INTL

MBA-RO Code Reader by AEA

For the active amateur radio operator, the MBA Reader provides an excellent means of allowing guests the opportunity to sample the thrill of Morse or RTTY operation. Likewise, it provides a unique way of demonstrating amateur radio in public.

The MBA Reader contains a built-in 32 character vacuum fluorescent display that presents any copied message moving from right to left across the display window. Large blue characters allow for minimum eye fatigue after long periods of viewing. There are no noisy mechanical parts to wear out or break down. There is also no requirement for a roll of teletype paper that can eventually cause a mess in the operating room. Important messages can be recorded on a standard tape recorder for future reference.

Nothing (economically) can match the interpretive skills of the human brain that has been trained in the art of Morse code copying, and no electronic Morse code reader can match the ability of a skilled CW operator when copying at or near the noise level. However, the MBA Reader's computer can make optimized dot, dash and spacing decisions better than most other readers, and when copying at or near the noise level the MBA-RO excells when compared to other much more expensive machines. The MBA Reader will also copy Morse code at speeds higher than has ever been recorded by a human operator.

A tremendous advantage offered by the MBA-RO is the opportunity for post-copy editing thanks to the 32 character display. This is particularly useful in reading long, complex sentences. Those readers with only 6, 8, or 10 character displays often cannot even display complete words. This difference becomes particularly evident during high speed CW copy or for RTTY (especially 110 Baud ASCII) monitoring. With a 32 character display even 100 wpm RTTY is a snap to read.

The MBA-RO comes with a built-in inverter power supply that allows for portable operation from a 12VDC power source. An optional UL approved AC power adaptor, AEA model AC-1, is also available for operation from 117VAC. The MBA Reader power input circuit is protected against inadvertent reverse polarization of the input power leads.

An attractive, rugged and compact metal package is designed for minimum R.F. radiation or susceptability problems.

The MBA-RO uses the receiver audio output with no special modifications necessary. Any standard output impedance will drive the MBA Reader, and a TTL level or switch closure (hand key or keyer) will likewise do the job. The unit is simple to hook-up and simple to use, no bulky CRT or printer is required. The few (three) controls, which are all well marked and self-explanatory, are located on the front panel.

Morse code **(CW) signals are enhanced by a built-in 100 Hz wide filter centered on 800 Hz.** Tuning is made easy with an LED tuning indicator. The filter can be switched out for copying a signal that is drifting, or for operating at a different tone pitch when using the receiver's own filter.

Dual mark and space **RTTY filters are provided in order to achieve the inherent noise rejection advantages of RTTY operation.** The narrow shift filters are factory tuned for 170 Hz shift (used in most amateur transmissions) while the wide shift filters are factory tuned for 425 Hz shifts (used in most news broadcasts). They can be easily tuned in the field, for any other shift desired. In RTTY operation, the CW filter position can be used instead of the RTTY positions to tune only the space frequency for various frequency shift signals. This is the only mode offered by some competitors. It has the advantage of flexibility in tuning different frequency shift signals, but the disadvantage of much less noise immunity!

An adjustable CW and RTTY threshold control with a dual LED tuning indicator for RTTY operation also improves the operator's ability to copy signals close to the noise.

An automatic speed indication can be switch selected. The speed appears in the four right most characters of the display and thus reduces the message display to 28 possible characters when it is selected.

There is no need to select a CW speed operation range as is required in many competitive units. The MBA-RO has an exclusive automatic speed tracking feature that will follow the most drastic speed changes, as are encountered when normally tuning across the band. This feature makes receiver frequency tuning easier, because you do not have to be concerned that the computer is still trying to "catch-up" to the new speed while tuning.

A very useful feature of any good code reader is **the ability to provide instant feedback of one's own sending proficiency.** This is particularly true in the case of proper spacing. All too often (even with skilled operators) words are run together without a sufficient word space between, or there are inadvertent spaces sent within words. These errors can be seen on the large 32 character display, and can be easily corrected after practicing a few hours with the MBA Reader. **No special interfacing is required to monitor one's transmitted signal** with most transceivers (or transmitter/receiver combinations) that provide a normal CW monitor sidetone to the speaker. If the sidetone

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MBA-RO Code Reader by AEA

is not close to 800 Hz, it may simply be necessary to switch the CW filter on the MBA-RO to the OUT position when transmitting.

The MBA Reader will decode all standard Morse characters including all punctuation, special (double letter) characters such as AS, and many European non-English letters.

All MBA Readers are subjected to a 48 hour burn-in at 120 degrees F to catch solid state infant mortality failures before they leave the factory. This program has earned AEA the reputation for having one of the lowest field failure records in the industry. It is a standard practice with all our microcomputer-based products. All products are checked for quality at all stages of production and a thorough final test is given each product after the oven burn-in, just prior to boxing for shipment.

Any service problems that might arise are taken care of promptly and courteously by factory customer service personnel. Any complaints regarding our products or service are sincerely requested to be made known directly to our president, Mike Lamb.

All sales of AEA products are handled through a network of competent and reputable dealers throughout the U.S. and much of Europe. AEA does not sell direct with the exception of sub-unit parts. If you would like a free demonstration of the MBA-RO (or any other AEA product) please see your local AEA dealer. AEA would be pleased to send you a list of dealers, upon request.

Specifications

Display: Blue 32 character vacuum fluorescent with 0.29 inch high 14 segment characters.

Modes: Morse Code, Baudot RTTY, ASCII RTTY

Speed: Automatically tracks Morse code from 3 wpm to 99 wpm.

Baudot RTTY speeds are: 60 wpm, 67 wpm, 75 wpm, and 100 wpm.

ASCII RTTY SPEED: 110 Baud.

Filtering: 100 Hz CW filter centered at approximately 800 Hz.

Narrow shift dual RTTY filter factory tuned to 970 Hz and 800 Hz (170 Hz shift).

Wide shift dual RTTY filter factory tuned to 1225 Hz and 800 Hz (425 Hz shift).

RTTY filters can be easily tuned for other desired shifts. Changing capacitors will allow for tuning higher frequency AFSK tones.

CW filter position can be used in RTTY mode for tuning space frequency only, to copy unusual frequency shift transmissions, but without the noise immunity advantage of the normal narrow and wide shift dual filter positions.

All filters can be switched out, which can be particularly useful if a center frequency other than 800 Hz is desired.

Input Impedance: Will work with virtually any receiver or audio output amplifier impedance.

Integrated Circuits: 17 plus one microcomputer.

Power Requirement: 13 VDC ± 2 VDC at 500 ma.

Dimensions: 8-3/4'' x 5-7/8'' x 2''.

Net Weight: Approximately 2 lbs.

Specifications Subject to Change without Notice or Obligation. All MBA-RO Software © Copyright by AEA.

The following are a few of the comments we have already received from the first happy users of the new MBA-RO reader:

Elmendorf AFB, AK. — I tried (bleep reader) my opinion is that the MBA-RO is 500% better!

Atlasburg, PA. — Your copier has more features at a better price than the competition.

Perrysburg, Ohio — Excellent reader.

Dothan, AL. — AEA did an excellent job on the MBA-RO — Congrats! I am really enjoying mine.

Marvel, TX. — I think you have a great product, keep up the good work.

Harlan, KY. — I feel for the price and 32 character readout that product is a steal. Tnx and 73's.

Burkburnett, TX. — Nice looking, well-built piece of gear. Enjoy using it.

Los Angeles, CA. — The unit has more features and better read-out than competition.

Phoenix, AZ. — Good training tool.

Gulfport, MS. — CK-1 keyer - Features of MBA-RO at price, plus previous purchase of CK-1 keyer and your excellent service supplied for CK-1 (aided in my buying decision) Many thanks!!! Great American gear!

Van Nuys, CA. — Your reader is the best.

Miami, FL. — It is great.

Virginia Beach, VA. — Very pleased with unit.

Normal, IL. — Works great!

San Mateo, CA. — The blue readouts are easy on the eyes.

Lakeside, CA. — Much better than others I've tried!

Jacksonville, FL. — (Had) good experience with MorseMatic keyer. Best buy going!!!

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MBA-RO Code Reader by AEA

Hawthorne, CA. — The most interesting and fun piece of gear I've purchased in 20 years of Amateur Radio. What a ball watch(ing) 80 WPM CW!

Cedar Mountain, NC. — Works perfectly.

Elkhart, IND. — Think it's great, it gives visual reinforcement to CW reception. Has helped my ability to copy CW in my head - Tnx!

Pittsburgh, PA. — Fired unit up after delivery and really am enjoying it!

Marietta, GA. — Am very pleased!

Hanford, CA. — I thought it was the best buy for a reader. Novice licensed 12/81 and wanted to fully explore CW before upgrading!

Toms River, NJ. — Its assorted features compared to others and its price (aided my buying decision). I am very pleased with its performance - excellent piece of equipment.

Neptune, NJ. — Nice unit. Compact and Read-out very adequate!

New Lenox, IL. — A fine piece of equipment. Easy to operate and versatile!

Pennsauken, NJ. — Nice display, easy on the eyes.

Antioch, CA. — My students love your MBA Reader. They see what they are sending. My son at home has now become interested in my hobby. Tnx a lot. I hope more people get into this nice hobby.

Brookfield, WI. — Your product has added a whole new dimension to SWLing.

Sebring, FL. — The main thing that interested me was the larger group of characters than other I had seen.

Seattle, WA. — Had an 8 digit (competitive model), wanted 32 digit readout. Works fine on my Kenwood TS-180S with 16 pole SSB filter. I am very happy with the MBA Reader.

Charlemont, MA. — Better (longer) readout than (bleep), also easier speed change. (Bleep) reader has to be cycled through all the speeds to get back to where you started!

Pittsburgh, PA. — I believe it is better than others that cost much more and I particularly like the 32 character readout.

Benton, ARK. — Easy to read at high speeds because of the 32 characters.

Hanover, MI. — It has brought back my interest in CW 100%, also the contacts on faster speeds.

Troy, OH. — Very good design.

Ft. Worth, TX. — Like 32 character display over (bleep). Easier to tune - signal stays captured - display very easy to read - like speed readout on CW - RTTY readout is excellent - high quality unit.

Joneboro, LA. — This is the darndest thing I've ever owned! It's helped my CW sending and I hope to upgrade to Gen. soon thanks to the MBA Reader.

Denver, CO. — Worked right on arrival, no problems -good show! Yes, good work can be done in the United States by craftsmen!

Kristianstad, Sweden — Want to have the best reader on the market, and it works very fine. Congratulations for a fine product.

Salem, MA — Am very impressed with the MBA-RO. Used primarily for reading marine weather forecasts.

West Covina, CA. — I couldn't wait for the MBA-RC ... but I'm not sorry - I am really enjoying my RO.

Highland Hts, OH. — Professional look, and performance, none like it available. Works like charm!

Waynesboro, PA. — Dennis Lauby was of extreme help in making this equipment work properly. He is the most consciencious service man I have ever dealt with and is the kind of company representative that a customer truly appreciates.

North Huntingdon, PA. — Your reader has all the features in one unit. Works very well.

Bothell, WA. — Very pleased with both CK-1 and MBA-RO. What I need now is your amplified speaker for IC2AT.

Cranbrook, BC Canada — Nice equipment, keep up the good work.

Jackson, NJ. — Have only had a chance to use the reader briefly. But, it works beautifully and I think will get me much more interested in CW.

Buckner, IL. — I really wanted a unit such as this to help my son with the code.

So. Charleston, W.V. — The MBA, like the MM-1 is fantastic. The "Advanced" in your company name well deserved!

Louisa, VA. — Works excellent - Instructions simple and brief.

Haverford, PA. — JUST GREAT!

Seattle, WA. — Looked like a very good aid to help in improving my CW. If my CW sending will be accepted by this reader 80% of the time, I will be better than 90% of the stations of all classes on the air!!!

Dana Pt., CA. — Felt this unit would visually improve my sending and learning code.

Springville, NY. — A real nice code reader. Doing real fine.

Dumfries, VA. — Display reading something new for me. Very interesting and lots of fun.

APO, NY, NY. — Excellent unit!!

San Diego, CA. — I can't miss!! The word is getting around about your talented engineers. AEA is up and coming, and far ahead of the rest!

AEA Brings you the Breakthrough!

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AEA MORSEMATIC™ MODEL MM-2

• **TWO MICROCOMPUTERS** provide more features **and** more features per dollar than any other keyer. Custom program your MORSEMATIC* for any speed from 2 to 99 WPM with any combination of dot and/or dash to space ratios (full weight control). An automatic TX (TUNE) provision that is defeated by pressing **any** keypad button or the paddle is just one example of the human engineering and utilitarian design that has gone into the MORSEMATIC.

• **FLEXIBLE MEMORY WITH AUTOMATIC SERIAL NUMBER GENERATOR** sets the MORSEMATIC apart from the closest competitor. The standard MORSEMATIC is equipped with a powerful 500 character CMOS memory that can be expanded to 2000 characters with a field installable option. The MORSEMATIC features "Soft-Partitioning"* of its memory, which means all the memory can be allotted to one message or divided up into as many as ten separate messages. If you make a loading mistake near the end of a long message, it can be easily corrected by using the MORSEMATIC EDIT MODE.

For the operator who has not yet made the transition from the bug to the automatic keyer, the MORSEMATIC memory can also be loaded in the bug mode and played back at any speed and any dot and dash to space ratio. An internal battery holder is provided for memory retention. A MEMORY-LIMIT LIGHT indicates when approximately 20 unused characters remain in memory. A drop in sidetone frequency signals a memory full condition.

The MORSEMATIC features a SERIAL NUMBER GENERATOR that was designed after analyzing inputs from many successful contest winners. The serial number automatically increments each time a message preprogrammed with a serial number is sent. The serial number can be decremented by one, very quickly, and even repeated several times (in another message) if the exchange was not made the first time. The serial number is not restricted to the same position in a message; it can be placed anywhere within a message and as many times as desired; it does not increment until the message is repeated. Any new serial number may be selected in 3 seconds or less.

The MORSEMATIC memory can be loaded in the common REAL TIME LOAD mode, or in the desirable, but uncommon AUTOMATIC WORD SPACE MODE for easy, flawless memory loading. In either case, the memory load does not initiate until the first character is sent so that there is no undesirable delay in playback. Provisions for REMOTE MEMORY start are provided. The memory playback can be halted with the paddle in the middle of a message and resumed where interrupted; or from the beginning.

• **AN UNPRECEDENTED BEACON MODE** sets the MORSEMATIC APART from **any** other keyer, especially in the eyes of a serious VHF operator. The Beacon mode allows **precise** timing of a transmitted message and of the pause period before the message is automatically retransmitted. The Beacon mode is ideal for scatter, moonbounce or tropospheric scheduling.

• **A MORSE TRAINER MODE** is made possible by the remarkable microcomputers that provide unparalleled flexibility and utility. The TRAINER can be programmed by the operator according to his own speed requirements. The MORSEMATIC features ten known starting positions with an Answer Booklet available to test one's copy ability. A random practice position is also provided for which there are no available answers. The Trainer can be programmed to start at any speed between 2 and 98 WPM and finish at any higher speed up to 99 WPM between 0.1 and 59.9 minutes later. Upon reaching the ending speed, the Trainer will continue to send at that speed until manually interrupted. The operator can select the Slow Code method where the characters are always properly spaced for any given speed or the Fast Code (Farnsworth) mode. In the FARNSWORTH MODE the characters are always sent at the highest speed selected, with extra space separating the characters in the beginning of the practice session. The extra space is gradually shortened until the highest speed is reached. This efficient training method pulls students through psychological speed barriers. The MORSEMATIC represents the first stand-alone Trainer with these features.

The Trainer can be used to key any transmitter for on-the-air code practice transmissions. Also, an earphone jack is provided for private practice sessions. Output characters can be formatted by five-letter groups or in random word lengths. Two levels of difficulty are selectable. Equal weighting is assigned to the practice of each character so that the student achieves a balanced familiarity with numerals and letters.

• **THE MORSEMATIC IS EASY TO LEARN AND EASY TO USE.** It was human-engineered for simple straight forward operation. Try a MORSEMATIC for yourself and see why it is preferred by novice license aspirants and experienced amateur extra class licensees alike.

P.S. The MORSEMATIC requires 9 to 16 VDC at 250 ma. It will key **any** modern transceiver with its separate + and - output jacks.

*Trademarks of Advanced Electronic Applications, Inc.

AEA Morse Keyer/Trainer Model KT-2

The new AEA model KT-2 is a full function computerized Morse code keyer and trainer unit. It features most of the outstanding attributes of the Morsematic and the Contester except the KT-2 does not offer any message memory storage.

The KT-2 offers precisely calibrated code speed controls. The user may choose between the Fast (Farnsworth) mode or the Slow Code mode of intracharacter speed, and actual code speeds from 1 to 99 wpm in 1 wpm increments. For example, the user can program a **character** speed of 13 wpm with an actual code speed of 4 wpm. (This allows for longer spaces between quickly sent characters. The internal computer determines the correct spacing for the selected speeds.)

One additional degree of flexibility offered by the KT-2 is an automatic increase of speed during practice sessions. The user may select a beginning speed and an ending speed, and a variable length of practice time (from 0.1 to 99.9 minutes). The Automatic Speed Increase mode can be selected in the Slow Code or the Fast Code (Farnsworth) mode. In the Farnsworth mode, the characters begin at the highest speed selected and extra space is inserted between characters to create the beginning speed. The space between characters gradually decreases during the selected practice time, until the final ending speed is achieved. At the end of the practice time, the characters continue to be sent at the ending speed until interrupted manually.

A 24,000 character Answer Booklet is available for the KT-2 to enable the student to check his progress. The KT-2 offers 10 known starting positions that correspond to positions within the Answer Booklet. For normal practice, the KT-2 also features a random mode, for which no answer booklet is available.

Two levels of code difficulty may be selected for practice: normal characters or all characters. The normal character mode sends all the alphabet, numerals and common punctuation (period, comma, slant bar, question mark) with equal weighting. This assures the student will become familiar with all the necessary characters at the same time.

The KT-2 also allows the user to select either five-letter code groups or random word length. The dash to dot to element space ratio is initialized to a perfect 3:1:1 ratio. The dash to dot (to element space) ratios can be independently programmed (full weighting control).

The KT-2 operates from any 12 volt (± 3 volts) DC source capable of delivering 200 MA. An AEA model AC-2 optional power supply is available as well as a DC-1 cigarette lighter power cord.

An Automatic Transmit (Tune) function allows two-handed tuning of the transmitter. The Tune function can be defeated by hitting any keypad button or the keyer paddle.

Semiautomatic (bug) operation can be selected instead of the normal Iambic automatic operation. The monitor tone frequency can also be automatically selected.

KT-2 ACCESSORIES

DC-1 Fused DC cigarette cord for mobile operation

DC-2 Nickel Cadmium battery pack and charger for approximately 2 to 3 hours operation between charges.

AC-2 12 V DC, 350 MA. AC wall adaptor for 117 VAC input

Model KT-2 Morse Keyer/Trainer

PROGRAMMING EXAMPLES

KEYER FUNCTIONS

1. To increase the sidetone frequency, press [*] and hold [1].
2. Press [*] [2] and enter the dot ratio [N] [#] [N] (N range 0.5 to 1.5).
3. Press [*] [*] [2] and enter the dash ratio [N] [#] [N] (range 2.0 to 4.0).
4. Press [*] [6] and enter any two digit speed from 02 to 99 wpm.

TRAINER FUNCTIONS

1. Press [*] [6] and enter a starting speed from 01 to 99 wpm.
2. Press [*] [*] [6] and enter a character speed from 01 to 99 (must be higher than starting speed).
3. Press [*] [7] and enter a practice duration (range 0.1 to 59.9 minutes) with [#] used for decimal point. Use [0] [#] [0] for infinite duration.
4. Press [*] [*] [*] [#] to begin random code generation.

Press: *	**	***
1 Tone Frequency Up	Tone Frequency Down	
2 Dot Ratio	Dash Ratio	
3 Dot Mem. Off	Dot Mem. On	TRAINER TEST POSITION
4 Dash Mem. Off	Dash Mem. On	
5 Semiauto (bug)	Auto	
6 Start Speed	Finish Speed	
7 Practice Duration	Tune	
8 All Characters	XXXXXXXXXXXXXX	
9 Random Space	5 Letter Groups	
0 Slow Code	Farnsworth	
# ---------- HALT ----------		Random Trainer

AEA model CK-2 ELECTRONIC KEYER

The new model CK-2 "Contester" keyer features CMOS memory with long-term battery (not supplied) keep-alive provisions. An automatic memory repeat with variable delay time is also included. The Keyer incorporates virtually all of the features of the renowned AEA Morse-Matic™, with the exception of the Trainer and Beacon modes. The CK-2 Keyer also has two pre-set speeds for fast recall and a stepped variable speed control for fast contest operation. Speed range is 1 to 99 wpm in one wpm increments.

The CK-2 was developed with the serious contest operator in mind. It is a low cost keyer with more features, wider range and better accuracy than keyers costing more than twice as much. The unit operates from 12 volts DC (plus or minus 3 volts DC) for maximum DXpedition flexibility. An optional AC adaptor is available from AEA.

The Keyer offers the contest operator a competitive edge with a flexible automatic serial number generator. The CMOS memory has a storage capability of approximately 500 Morse characters. AEA's exclusive soft-partition™ of the memory means that all of the memory can be allotted to one message or divided up into as many as ten separate messages of varying length, so long as the total is no more than the 500 characters. If you make a mistake loading the message, it can be easily corrected by using exclusive AEA Editing. The Edit mode can save the CW operator time and frustration, especially in loading a long message. The CK-2 memory can be loaded in the desirable (but uncommon) Automatic Word/Character Space Load for easy flawless memory loading or in the more common Real Time Load mode. In either case,memory load does not initiate until the first character is sent so that there is no undesirable delay in playback. The memory playback can be halted in the middle of a message by tapping the paddle. It can be resumed where interrupted, or from the beginning. When loading memory, a significant drop in sidetone frequency signals a memory full condition.

• **The CK-2 Keyer features a Serial Number Generator** that was designed after analyzing suggestions from many successful contest winners. The serial number automatically increments each time a message pre-programmed with a serial number is sent. The serial number can be placed anywhere within a message and as many times as desired; it does not increment until a message is completed. The same serial number can even be repeated in a second message if the exchange was not made the first time. Any new serial number may be selected in less than three seconds. The serial number can be loaded with as little as one character space between it and the preceding character.

Like all other keyers in the AEA computerized Electronic Keyer line, the CK-2 features independent dot and dash ratio adjustment (full weighting). Also, dot and dash memories can be independently turned on or off. For the operator who enjoys operating with a bug, the CK-2 features semiautomatic operation. In the semiauto "bug" mode an operator can even load the message memories. The CK-2 will key any modern transceiver and features two output jacks (RCA phono type) for keying either plus or minus key jack voltages to ground. The CK-2 also features an Automatic Tune mode which can be halted by tapping any keypad button, or the paddle.

The CK-2 is packaged in an a attractive case, ideal for placing next to the keyer paddle without wasting valuable operating desk space. AEA engineering has provided maximum RF protection to avoid frustrating false keying. Like all microcomputer-based AEA products, each unit is fully tested and burned in at 50°C to "shake out" component failures. Mating power and paddle connectors are provided.

The CK-2 is easy to learn and easy to use, providing the operator the maximum amount of enjoyment with CW.

CK-2 ACCESSORIES

DC-1	Fused DC cigarette cord for mobile operation
AC-2	12 VDC, 350 MA. AC wall adaptor for 117 VAC input

KEYER SELECTION GUIDE

by AEA

MM-2

MorseMatic™

KT-2

Keyer Trainer

CK-2

Contest Keyer

IMPORTANT KEYER AND/OR TRAINER FEATURES	AEA MM-2	AEA KT-2	AEA CK-2
Speed Range (WPM)	2-99	1-99	1-99
Memory Capacity (Total Characters)	500	N/A	500
Message Partitioning	Soft	N/A	Soft
Automatic Contest Serial Number	Yes	N/A	Yes
Selectable Dot and Dash Memory	Yes	Yes	Yes
Independent Dot & Dash (Full) Weighting	Yes	Yes	Yes
Calibrated Speed, 1 WPM Resolution	Yes	Yes	Yes
Calibrated Beacon Mode	Yes	N/A	No
Repeat Message Mode	Yes	N/A	Yes
Front Panel Variable Monitor Frequency	Yes	Yes	Yes
Message Resume After Paddle Interrupt	Yes	N/A	Yes
Semi-Automatic (Bug) Mode	Yes	Yes	Yes
Real-Time Memory Loading Mode	Yes	N/A	Yes
Automatic Word Space Memory Load	Yes	N/A	Yes
Instant Start From Memory	Yes	N/A	Yes
Message Editing	Yes	N/A	Yes
Automatic Stepped Variable Speed	No	No	Yes
2 Presettable Speeds, Instant Recall	No	No	Yes
Automatic Trainer Speed Increase	Yes	Yes	N/A
Five Letter or Random Word Length	Yes	Yes	N/A
Test Mode With Answers	Yes	Yes	N/A
Random Practice Mode	Yes	Yes	N/A
Standard Letters, Numbers, Punctuation	Yes	Yes	N/A
All Morse Characters	Yes	Yes	N/A

OPTIONS:

ME-2: 2000 character plug-in Memory Expansion for MM-2

AC-2: 350 Ma. 12 Volt wall adaptor for all AEA Keyer and Trainer Products

DC-1: Cigarette lighter cord for all AEA Keyers and Trainers

DC-2: NICAD Battery Pack and charger for KT-2

All our Keyers will operate with any popular single lever or lambic squeeze paddle and will key any type of modern amateur transmitter with no external circuitry required. AEA Keyers are as easy to operate as a four function calculator. The internal AEA computers are all preprogrammed for the features shown above. Each AEA product is fully RF protected and receives a complete elevated temperature burn-in and test before it is shipped from the factory.

Ask a friend how he likes his AEA Keyer compared to anything else he has ever tried, then JUDGE FOR YOURSELF. See the AEA Keyer and Trainer Family at your favorite dealer.

COMMENTS: AEA has received many flattering comments about our keyers from happy users, a few of which we would like to share with you. Of course, these comments refer to our first generation microcomputer-based keyers, but they would apply equally well to our new second generation keyers. The new keyers offer even more features and value at lower prices!

Albany, CA — Wonderful engineering!! How can you top this?

Mitlville, NJ — Very pleased - well worth the price - good documentation.

Columbus, NJ — I don't think your ads do justice to the quality or versitility of the unit.

Margate, FL — Enjoy contest format & beacon mode for 6 M. Retired my Accu keyer & Brown bros paddle for urs & Hamco "Scotia" paddle. Terriffic combo. BEST KEYER EVER SOLD.

Brownsburg, IND — Very pleased with keyer - find the versatility and range of functions just fascinating - thank you for the BEACON!

Marietta, GA — It is absolutely the NUMBER ONE keyer ever made. Works Great!

Hancock, N.H. — Best keyer I've ever used!

Nova Scotia, Canada — Super fantastic! Unbelievable — Whats left?

New Port Rickey, FL — Best keyer I've seen.

Virgin Islands — Haven't had so much fun in years.

Richmond, VA — I thought it would take a long time to learn to program the Morsematic, but a couple of hours was all it took, AN AMAZING LITTLE MACHINE.

Germantown, TN — Am very impressed by the high degree of quality and ease of operation.

Burke, VA — Extensive flexible features and high quality construction.

Tacoma, WA — We are a 4 ham family & this product is going to help us upgrade & contest - very, very useful item.

Luxembourg — As a 100% CW operator I enjoy the MM-1 very much. Congrats for your very F.B. new keyer generation.

Temple Hills, MD — This thing does everything but fill in the log. Memory seems to be particularly clean in picking up entries.

Los Angeles, CA — The Morsematic is the "best" keyer/trainer available anywhere. Many well experienced CW operators have also recommended it to me!

Fresno, CA — Extremely easy to use - can't wait until 1982 ARRL CW SS.

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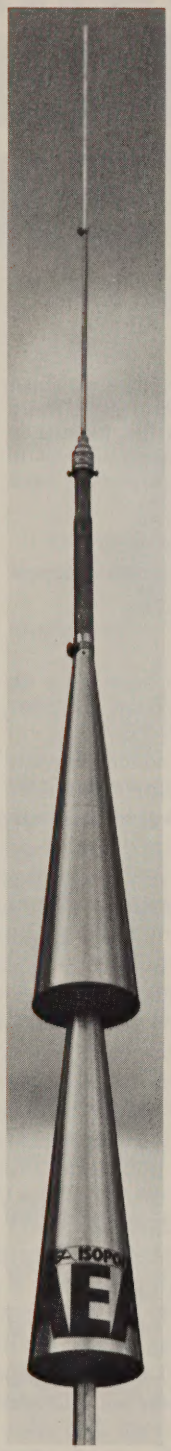
ISOPOLE T.M. Antennas by AEA



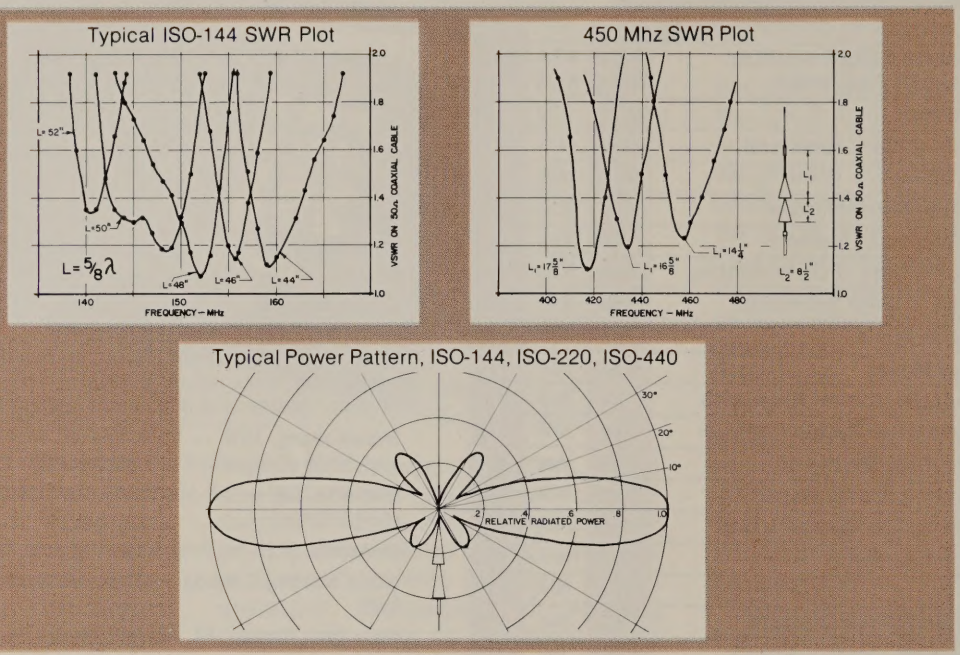
ISO-144
ISO-220

MASTS
NOT SUPPLIED

The IsoPole is building a strong reputation for quality in design and superior performance. Innovative IsoPole conical sleeve decouplers (pat. pend.) offer many **new** design advantages.

All IsoPole antennas yield the **maximum gain attainable** for their respective lengths and a zero degree angle of radiation. Exceptional decoupling results in simple tuning and a significant reduction in TVI potential. Cones offer greater efficiency over obsolete radials which radiate in the horizontal plane.

The IsoPoles have the broadest frequency coverage of any comparable VHF base station antenna. This means no loss of power output from one end of the band to the other when used with SWR protected solid state transceivers. **Typical SWR is 1.4 to 1, or better, across the entire band!**



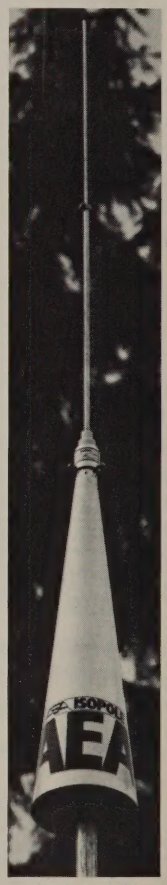
Outstanding mechanical design makes the IsoPole an excellent choice for a VHF base station antenna. A standard 50 Ohm SO-239 connector (Type N for ISO-440) is recessed within the base sleeve (fully weather protected). With the IsoPole, you will not experience aggravating changes in SWR with changes in weather. The impedance matching network is weather sealed and designed for maximum legal power. The insulating material offers superb strength and dielectric properties, plus excellent long-term ultra-violet resistance. All mounting hardware is stainless steel. The decoupling cones and radiating elements are made of corrosion resistant aluminum alloys. The aerodynamic cones are the only appreciable wind load and are attached directly to the support (a standard TV mast which is **not supplied**). You can buy a mast from your local hardware or Radio Shack store, for less than the shipping cost of a single 10' mast!

Operating on MARS or CAP? The IsoPole and IsoPole Jr. antennas will typically operate at least ± 2 MHz outside the respective ham band without retuning. However, by simple length adjustment, the IsoPoles can be tuned over a wider range outside the ham bands as shown in the SWR charts.

The IsoPole antennas are all impedance matched in the factory so that no field tuning is required. Instead of the typical 25-40 screws, the IsoPole has no more than 5 stainless steel screws to fasten, thereby significantly decreasing the time necessary for assembly and reducing the chance for errors.

Specifications subject to change without notice or obligation.

ISO-440



ISO-144JR
ISO-220JR

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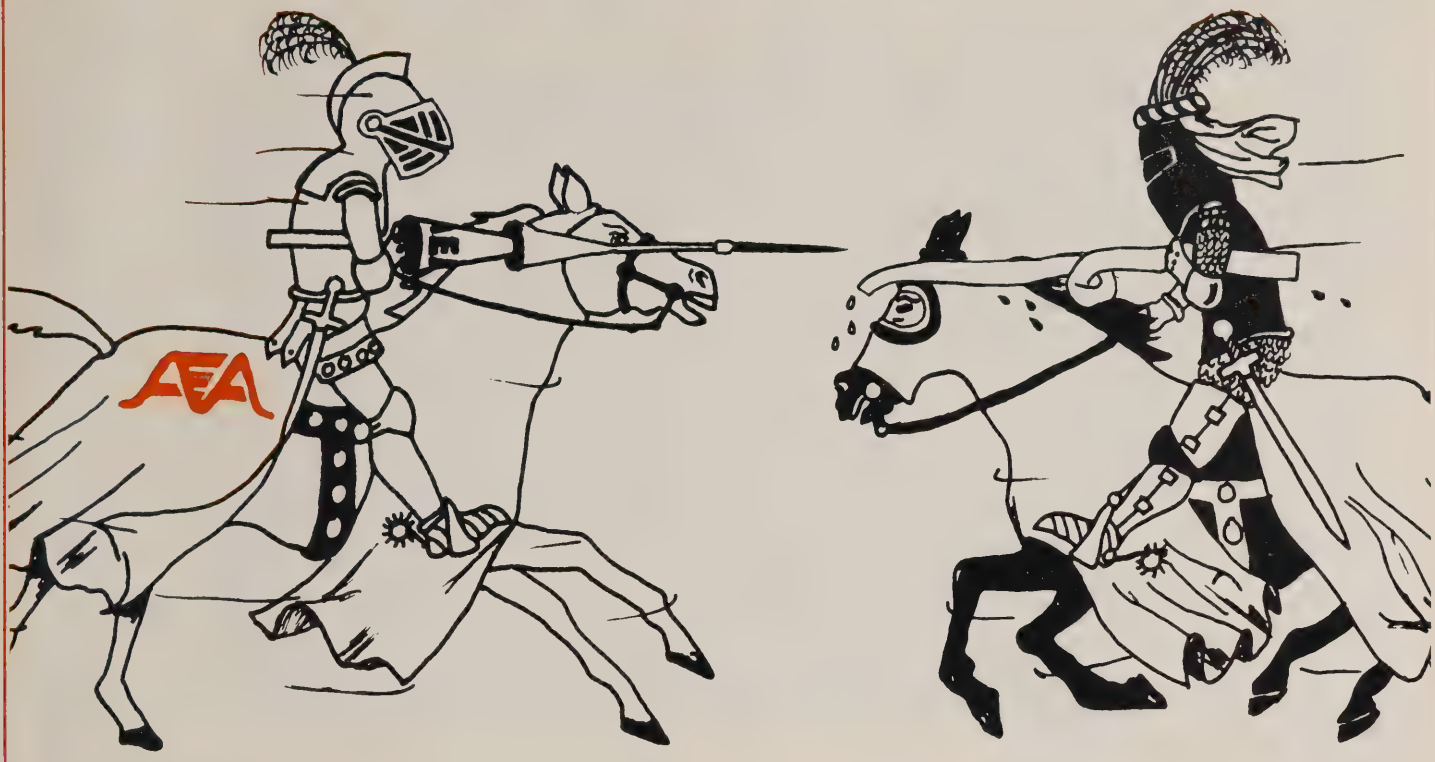
50 db GAIN

OVER A 1/4 WAVE WET NOODLE!



It sounds ridiculous..doesn't it? Amateur Radio advertising is not exempt from exaggeration. When facts are distorted by fabrication you may be induced to buy a product that ultimately is incapable of meeting the performance claimed by the manufacturer. Caveat Emptor (buyer beware)!

The **AEA IsoPole™** antenna has 3 db gain over a dipole in free space. This is an honest and supportable claim. Yet other manufacturers claim as much as a 7 db gain for their antennas using no reference standard or a 1/4 wave antenna as reference. The 1/4 wave is not a recognized reference used by **reputable** antenna engineers because it is most difficult to properly decouple in a repeatable fashion.

The **IsoPole** antennas offer **the maximum gain attainable** for the length of antenna. This is a bold statement and one we know we can stand behind!

For any linear array antenna to outperform the **IsoPole** by 3 db or more on-the-horizon gain, it would have to be at least 20 feet long! Anything less and you can bet that advertising deception is being used.

Before you buy a VHF or UHF base station antenna, get some good **honest** facts about VHF antenna design. Send for your **FREE** copy of "Facts About Proper VHF Vertical Antenna Design" by Professor D.K. Reynolds, K7DBA. You'll be glad you did.

In the meantime, we would like to expose you to some of the comments we have received from customers that are using the **IsoPole**.

Seattle, WA — Compact & easy to install, quality & keeps XYL happy -looks good!!

Half Moon Bay, CA — Found repeaters I only heard about before from my QTH — Excellent. Amazed at light weight and low cost...

Sturgis, SD — The Isopole Antenna has exceeded my expectations.

Lumberton, NC — You really do what you say! The best 2 mtr. antenna I have ever owned!

La Habra, CA — Hooked up today, and it was a perfect match throughout the entire band. For the money, you can not go wrong.

Tok, AK — Truly a fine antenna, working better than the five element yagi it replaced.

Sacramento, CA — Assembly was remarkably easy, I needed an efficient, low profile antenna & your product fit the bill to a "T".

Warsaw, IND — AMAZED!!! Antenna ground mounted on required mast & outperforming a (R.R.) at 55' on top of tower.

Loris, SC — I'm a commercial radio salesman, and the Isopole is THE antenna I recommend.

Seattle, WA — Works well — excellent. Had (R.R.) at 80'. With the Isopole at 20 ft. I now hear repeaters and simplex I never heard with (R.R.) The Isopole will soon be at 80'.

Freehold, NJ — It is everything your ad says and more.

Great Neck, NY — Amazing difference between (R.R.), 10 db or better, raise rept. never heard before — SUPER, 73 and thanks.

Richfield, OH — Works extremely well, broke a repeater at 100 mi using 150 mw !

Vernon, TX — (The dealer) said the antenna WAS THE BEST ON MARKET and I AGREE! It IS AN EXCELLENT antenna & works to specs -Thanks.

Prices and Specifications subject to change without notice or obligation.

AEA

Brings you the Breakthrough!

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ISOPOLE™ Antennas by AEA

Westlake, OH — I will recommend your antenna to anybody that asks about it. Really works F.B.
Orlando, FL — Easy to assemble - works F.B.!
Barberton, OH — Very good construction and very easy to assemble.
Thomiston, GA — Very good gain, very low VSWR.
Mt. Carroll, IL — For comparable gain. (P.D.) wanted $298 for an antenna.
Florence, AL — Works fine - I can hit repeaters 100 - 150 miles away.
Halifax, N.S., Canada — Very easy to set up.
Knoxville, TN — Works great!
Grenada, CA — Well done!!! 150 mw = 50 miles simplex S6 over hills and mountainous terrain!
Farsta, Sweden — A very nice antenna - works beautifully.
Bainbridge Island, WA — Added 14 more repeaters I was able to access using RG-58 (=50') temporarily.
Lake Waccamaw, NC — Super Antenna!!
Soquel, CA — The ugly thing works better than any other antenna, works fine...ugly or not, Thanks for a good antenna!
Prince Edward Island — So far it's working great and is very neat looking.
Vancouver, WA — Performs good — installs easily — fits small space — very low SWR.
New Rochell, NY — Very neat, unobtrusive, easy to assemble and erect...SWR very close to your specs.
San Diego, CA — Works great!
Martinsburg, W. VA — We are using the antenna as our repeater antenna. It's performance is superior to that of the (bleep) we were using before.
Victoria, B.C. — High gain omnidirectional, also physically rigid and easy to install.
Rouzerville, PA — Excellent coverage from 144 to 148.
Leavenworth, KS — Easily assembled, very low SWR, very pleased with performance.
Bremerton, WA — Simple, good design.
Kingman, AZ — Lived up to your ads.
Evansville, IND — This is my second ISO-144 for repeater at 110'.
Tigard, OR — Easy to assemble and install, quality excellent, keep it up.
Reno, NV — The Isopole has outperformed any omni I have used, the match is fine, .2 watts REF at 25 watts FOR. It has survived wind to 50 mph.
Blasdell, NY — Easy assembly, wonderful results.
Monterey Park, CA — Very fine product.
Covington, IND — Like the ease of setting up.
Mt. Vernon, ILL — FANTASTIC!!
Tulsa, OK — I like it so well, I'm buying another for a 2nd location.
N. Bellmore, NY — It is the easiest to get on the air with and may well be the best omni antenna I have owned, and I have owned many and made a few.
Cumberland, MD — I like your stuff, I have a Morsematic MM-1.
Mill Valley, CA — Easy to assemble and install, works very well.
Campbell, CA — WOW!!
Bend, OR — Great antenna.
Fox Island, WA — Have mounted antenna at our place between Pacific Beach & Moclips where high winds are a big problem — have had excellent results.
Bellevue, WA — Like engineering & design. It went up quick, has LOW SWR, and low wind resistance.
Yerington, NJ — Salesman said it was good — IT IS GOOD!
Ft. Worth, TX — Looks good!!
San Diego, CA — It is the best 440 antenna available at this time.
Brooklyn, NY — I hear & transmit to stations & repeaters that I never knew were there, antenna excells (so they tell me).
Midlothian, VA — I like the ease of assembly and simple tuning procedure.
Tulsa, OK — I have another (Isopole - 144) and am very happy with it. I own two AEA Morsematics. Have been very pleased with your products.
N. Bellmore, NY — Very satisified with performance & low VSWR across band.
Covina, CA — Very pleased with assembly & operation.
Hot Springs, SD — SUPERB!
Bethpage, NY — Great antenna! Solidly built, simple design and fantastic performance. Best 2 M vertical on the market today.
Spring, TX — I am glad to see an American product that works this well.
Shortsville, NY — Super easy instructions for assembly.
Holland, MI — I live in an apartment, it works great, does terrific job.
Bloominton, IND — Was looking for a small 2 M antenna that could be mounted on top TV antenna — This Isopole Jr. 144 is perfect for my needs.
Seal Beach, CA — Excellent workmanship on antenna.
Towson, MD — I put up a 144 IsoPole for a friend and it was much better than his (R.R.).
Holtsville, NY — SWR almost flat over entire two meter band.
Sant Maria, CA — I'm delighted with this antenna. I can reach the McKitrick repeater almost 100 miles away with less than 2 watts. SWR flat on 2 watts.
Cupertino, CA — Maintain Sked with Sacramento via VACA Mt. Rptr — solid contacts - 130 miles.
San Antonia, TX — Easy to assemble, has an excellent rating here.
Port Angeles, WA — Everyone says what a good piece of gear it is. No one has had any trouble with them.
Mascoutah, IL — The antenna is a very great improvement in the CAP net that it is used in.
Hudson, NY — This Jr. 144 was installed atop 150' tower in place of (R.R.) and the 2"S" units of noise went away. Also close in shaded areas were now visible. The SR 144 will go up in the sping for further test. Wow!!
Nevada City, NV — I am very pleased with the IsoPole 144. I have already recommended the IsoPole to other amateurs in my area and will continue to do so.
Point Arena, CA — I already have 2 other IsoPoles, so I know they perform well. Bought this one from (bleep) because they had them on sale.
McAlester, OK — Very easy to assemble & install. Performance excellent. Bandwidth outstanding.
Richmond, WA — Excellent coverage; good gain. Should be a comment in instructions about D.C. ground; but a very good antenna.
Agawam, MA — There was no (R.R.) in stock!! Literature indicates maybe I was in luck.
Phoenix, AZ — Easy to install, very excellent results.
Lancaster, CA — Receives better than beam.
Redwood City, CA — One super antenna — works great. Goes together with ease. — 73 —.
Milpitas, CA — Word-of-mouth ranting and raving how good the Isopole is (helped make my buying decision).
Prince Edward Island — Getting many good reports.
Dayton, OH — Antenna well constructed - simple to erect -economical & broad banded.
East Caroline Island — Used on both ham & commercial (156 MHz) - SWR on 146 MHz 1.7:1, on 156 MHz 1.5:1.
Concord, NC — A real attention getter and a good performer.
Oak Harbor, WA — Works as good as, if not better than anything we've tried on the repeater to date.
N. Vancouver, B.C. — Very low SWR, excellent signal reports.
Surfside, FL — Well constructed, easy assembly, 1:1 SWR first try, it's up 30 feet and doing a fine job.
San Pedro, CA — Just keep up the good work with mfg. good products at a REASONABLE cost.
Cooper City, FL — Like the wide band width & easy installation.
So. Charleston, W. VA — Like the weather protected connector.
Norfolk, VA — I am very pleased with the Isopole. Easy assembly. Great repeater & simplex coverage. Tnx for a great antenna.
Oxford, PA — SWR changes as a function of WX with (R.R.) also liked the clean, but unusual appearance of the Isopole.
Staten Is., NY — Quite satisfied, tuned up as per specs. Works very good!
Lakewood, OH — A piece of cake to put together and erect. I used 1" aluminum rigid conduit.
Sun City, CA — This is a great antenna, it out performs anything yet.

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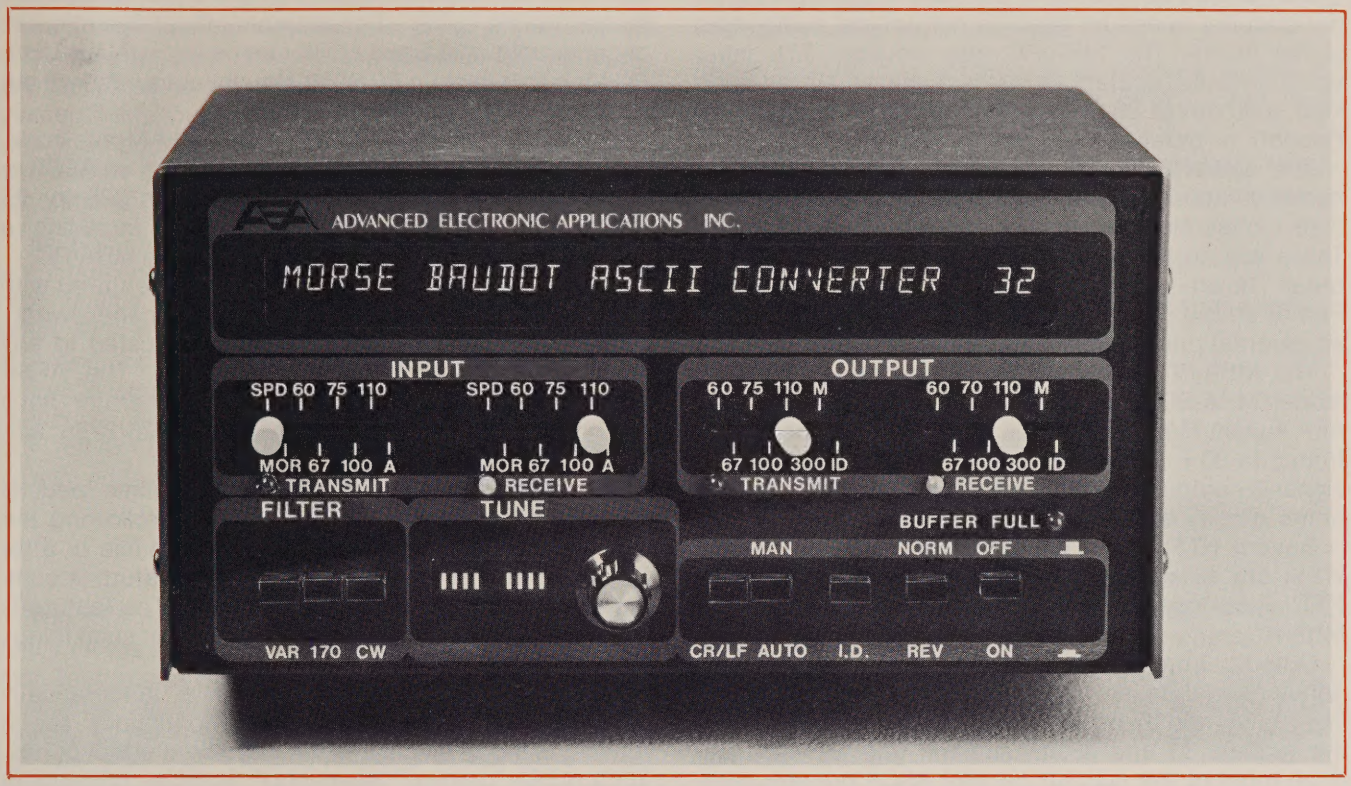
MBA-RC Reader T.M.

Code Converter

by AEA



The new model MBA-RC (Morse, Baudot, ASCII Reader/Code Converter) represents another significant breakthrough in data communications equipment from Advanced Electronic Applications, Inc. The MBA-RC is actually several sophisticated devices all wrapped up in one package.

The unit performs as a full function **decoder and display** unit for Morse, Baudot (teletype) and ASCII (teletype/computer) coded signals. The MBA-RC operates directly from the audio output of any stable communications receiver, with no other accessories necessary except a 12 VDC source. The MBA-RC also encompasses a feature-packed **Morse, Baudot and ASCII encoder and code converter.** The unit will perform **serial to parallel and parallel to serial** code conversions as well as cross-mode conversions. All the necessary analog processing and tone generation for two way contacts in any of the MBA codes is included in the standard unit.

Two powerful AEA microcomputers, 43 integrated circuits, and all the associated circuitry comprising the MBA-RC are contained within one compact and handsomely designed package. The package takes up little extra operating space and lends itself nicely to portable two-way RTTY operation from a 12 VDC source.

Morse, Baudot and ASCII Reader Features

The MBA-RC incorporates very advanced analog signal processing circuitry for allowing maximum readability from weak or interfered with signals. The MBA-RC is compatible with all the standard HF, VHF and UHF Amateur RTTY modes (plus non-encrypted news or weather broadcasts). Separate receive filters are positioned ahead of and behind a special signal limiting circuit (pre and post limiting filters).

A four-pole two stage active CW filter can be front-panel tuned for any audio frequency between 300 Hz and 2KHz. RTTY (Baudot or ASCII) signals are processed by separate Mark and Space filters for maximum noise and interfering signal rejection. The RTTY filters are tuned for a fixed 170 Hz shift (2125 Hz Mark/2295 Hz Space) or a front panel selected variable shift from 100 to 1000 Hz (2125 Hz Mark/2225-3125 Hz Space). A normal/reverse switch is provided for receiving RTTY on the opposite sideband (upper). Separate Mark and Space tuning LED's are provided on the front panel. For operators having an oscilloscope handy, separate Mark and Space signal outputs are available for conventional scope tuning.

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MBA-RC Reader T.M.

Code Converter by AEA

Sufficient amplification is provided in the MBA-RC input circuitry to ensure good copy from low audio input signal levels. The MBA-RC also accepts TTL input voltage levels, contact closures (such as Morse hand key), a 60 mA or 20 mA keyboard loop, serial (ASCII or Baudot), or parallel ASCII inputs.

The MBA-RC comes with a 32 character alphanumeric vacuum fluorescent display. Each character is 0.29 inches high. No external CRT or TV is required. There are no noisy mechanical parts to wear out or break down during normal monitoring. However, Printer output is available for obtaining hard copy with an external printer when it is desired.

The MBA-RC has most of the features of the AEA model MBA-RO (reader only) including the exclusive AEA instant Morse automatic speed tracking capability from 3 to 80+ WPM. The speed of the received Morse signal is computed and can be displayed at the far right of the display at the completion of each word.

Baudot RTTY input speeds of 60, 67, 75 and 100 WPM are all accepted by the MBA-RC reader. ASCII RTTY input speed of 110 Baud is also copied by the MBA-RC.

Outputs from the MBA-RC can be used to drive popular serial Baudot Teletype printers such as models 15, 19, 28, and 32 or ASCII teletype machines such as the models 33 and 35. In addition, the MBA-RC will drive most of the popular parallel ASCII printers such as Epson and Centronics.

MBA-RC Encoder Features

Any standard Baudot or ASCII parallel keyboard, a current loop, even two-tone AFSK can be used to drive the MBA-RC. Regardless of the type of input, any of the three output codes can be generated at any of the MBA-RC available output speeds. Morse code input from a hand key, bug, keyer or memory keyer (even a Morse keyboard), can be instantly converted to Baudot or ASCII two-tone RTTY output for driving a SSB transmitter at the audio input jack. It will also drive FSK transmitters from a transistor keyed output port. When used with a Morse memory keyer, high speed RTTY transmissions can be made without need of a keyboard.

Any Morse, Baudot or ASCII input code can be converted to any of the three ouput (Morse, Baudot or ASCII) codes. Also, any available specified MBA-RC input speed can be converted to any available specified MBA-RC output speed. A 1000 character dynamic storage buffer is particularly useful for code conversions from high speed inputs to low speed outputs (such as 110 Baud ASCII to 20 WPM Morse). A buffer limit LED will indicate when you are about to type too much into the buffer - For example, about five minutes of continuous 110 Baud ASCII can be fed into the MBA-RC for conversion to 60 WPM Baudot output before the buffer limit LED comes on.

The MBA-RC will transmit 1 to 99 WPM Morse code. The output speed for Morse can be set from an ASCII or Baudot keyboard by typing $NN, such as $25 for 25 WPM. A built-in CW sidetone monitor including a speaker is also standard equipment in the MBA-RC.

A built-in AFSK tone generator is also featured with 170 Hz or 850 Hz shift selected by a rear panel switch. Either of the shifts can be internally adjusted to any other shift between 100 and 1000 Hz. The AFSK generator uses a clean, stable function generator (not a 555 timer) that is factory tuned to 2125/2295 and 2125/2975 Hz.

An automatic CR/LF (carriage return/line feed) is generated in receive or transmit mode following the first word space after 64 characters on a line or after 72 characters if no space occurs. This feature is commonly referred to as word wrap-around. The feature is easily defeated with a front panel switch for such things as receiving RTTY pictures.

An anti-space (mark-hold) mode is automatically enabled after about a second of continuous space tone. This mode eliminates the undesired effect of having a printer running "open-loop". Another convenient feature is automatic down shift on space for Baudot reception or transmission. Otherwise known as USOS (unshift on space), it is independently selectable for transmit and/or receive on the rear panel.

An automatic station identification memory message is offered in the standard MBA-RC which can be activated by a front panel switch. The output generates less than a 50 Hz tone shift as well as a simultaneous CW keyed output. It also can be used for standard BAUDOT or ASCII message transmission.

An external contact closure applied to a rear panel jack will automatically change the selected input and output modes from receive to transmit.

General MBA Features

The MBA-RC is packaged in an attractive metal enclosure with a handsome front panel that is human engineered for easy operation. Operating status indications are provided for Morse speed, Mark and Space tune, and transmit and receive active modes in operation.

A built-in high and low voltage inverter power supply allows operation from an external 12 volt power source. The unit is diode protected against inadvertent reverse

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MBA-RC Reader™

Code Converter

by AEA

polarization.

Radio frequency interference is a prime design criterion in all AEA designs and the MBA-RC is no exception. This unit is designed for absolute minimum susceptibility to rf and for minimum rf radiation from its two microcomputers (far exceeding requirements outlined in part 15, subpart J of the FCC rules and regulations).

No point-to-point wiring is evident in the MBA-RC as a continuing effort to increase reliability. We also use high quality glass epoxy printed circuit boards. Like other AEA microcomputer-based products, the MBA-RC receives a full elevated temperature oven burn-in before a complete final test prior to shipping. All the measures taken to ensure the highest level of quality in our other successful product lines are likewise employed in the production of the MBA-RC.

CC-1 Code Converter

The AEA model CC-1 Code Converter unit offers virtually all the modulator, demodulator and code conversion features of the MBA-RC. It DOES NOT have a 32 character alphanumeric vacuum fluorescent display. Hence, all the specifications and features for the MBA-RC (EXCEPT THE DISPLAY) apply to the CC-1 Code Converter.

MBA-RC Specifications

RECEIVE

Display: Blue 32 character vacuum fluorescent with 0.29 inch high, 14 segment characters.

Modes: Morse Code, Baudot RTTY, ASCII RTTY

Speed: Automatically tracks Morse Code from 3 to 80+ WPM, Baudot RTTY speeds: 60, 67, 75, 100 WPM, ASCII RTTY: 110 Baud.

Filtering: Four-pole variable CW filter front-panel tuned from 300 to 2000 Hz. Can also be used for SPACE ONLY RTTY tuning.

RTTY 170 Hz Fixed (2125 Mark/2295 Space) Reverse/Normal switch.

RTTY Variable 100 to 1000 Hz Shift (2125 Mark/2225-3125 Space).

Input Impedance: Approximately 5K Ohms. will work with virtually any receiver or audio amplifier output impedance.

Printer Outputs: Serial (current loop) Baudot such as teletype models 15, 19, 28, and 32.

Serial current loop ASCII such as teletype models 33 and 35. Parallel ASCII such as EPSON and CENTRONICS.

Automatic CR/LF: (switchable) after first space following 64 characters or after 72 continuous characters (word wrap around).

USOS: Down shift on space (switchable).

Anti-Space: Mark-hold after continuous space tone.

TRANSMIT

Modes: Morse code, Baudot RTTY, ASCII RTTY.

Output Speed: Morse 3-99 WPM

Baudot RTTY 60, 67, 75, 100 WPM

ASCII RTTY 110 Baud

Keying Outputs: CW: Cathode Keyed (to 200 ma.) grid block (to -300 volts) or solid state transmitters.

RTTY: Photo-isolated contact closure, TTL level transistor switch, or two tone AFSK 170 Hz shift (2125 Mark/2295 Space), 850 Hz shift (2125 Mark/2975 Space).

Inputs: Morse: from hand key, bug, keyer, memory keyer, Morse keyboard.

RTTY: Two tone ASCII or Baudot AFSK, Parallel (TTL compatible) or serial ASCII or serial Baudot.

Automatic CR/LF: (switchable) after first space following 64 characters or after 72 continuous characters.

USOS: Down shift on space (switchable).

Auto I.D.: Less than 50 Hz Morse shift from programmable I.D. memory. Can also be used for standard Morse, BAUDOT or ASCII message transmissions.

GENERAL

Power Requirement: 13 VDC ± 2 VDC at 1 AMP.

Integrated Circuits: 43 IC's plus two custom AEA microcomputers with copywritten firmware.

Size: 8¾" W x 4½" H, x 7" D

Weight: Approximately 5 lbs.

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Advanced Electronic Applications, Inc.
P.O. Box C2160 Lynnwood, WA 98036

NEW ACCESSORIES FROM AEA

PSK-1 — The new AEA Power Speaker unit operates from any external 12 VDC, 500 ma source to supply high quality audio punch for your mobile or base station application. The PSK-1 is an excellent choice for using your handheld in a noisy mobile environment, or attractive enough to be used in the base station. The PSK-1 provides approximately 20 db of audio gain and will operate with any popular transceiver.

HTM — The new AEA Handi-Talkie Microphone has an **electret** element, plus a volume control to adjust to your own voice and noise conditions. The HTM comes with a mating connector and is pre-wired for the popular IC-2A line of handi-talkies. This man-sized microphone minimizes hand fatigue.

HR-1 — The AEA "Hot-Rod"™ telescopic antenna is designed to reduce the physical obtrusiveness relative to popular 5/8 wave telescopic antennas, plus it offers MORE GAIN. The antenna is made of high quality components and comes with a BNC connector for easy mating to most popular two meter hand-held transceivers. It also makes an excellent emergency base station antenna.

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